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## Joe Rutherford Shares Three Decades of Composting Experience with Visitors to the Harford County Compost Facility

By Andrew Kays

It looks like rain as we begin our tour of the Scarboro Road mulch/compost facility. Joe Rutherford is superintendent of the Harford County Scarboro Road landfill. He's been with Harford County for 38 years and has more than 30 years of experience in composting. We walk past the receiving area toward a side area of the facility where the co-composting (yard clippings and biosolids) demonstration project is operating. As we walk toward the compost windrows, Joe explains the operations of the composting facility.

"When a vehicle comes into the facility, it's greeted by a facility representative who inspects the load. The driver is directed to one of two piles — the brush pile or the yard clippings/leaf pile," says Joe.

In the normal composting program, brush goes through the grinding process twice to reduce the size of the material, yard clippings go through the grinder once. The ground brush is moved to a separate area of the facility and is placed in piles for the mulching process to begin. The yard clippings are placed into windrows (large rows that are more than 20,000 feet long and six feet tall). The composting process is kick-started with the addition of a third-stage (nearly complete) compost as an inoculate, and urea as a nitrogen source. The rows are aerated mechanically using a turner. The goal for the composting process is to achieve a 30:1 carbon to nitrogen ratio in the final product.

The new demonstration project, which incorporates the use of biosolids from the SodRun Waste Water Treatment Plant, is being conducted in two parts. A 4:1 ratio of chips/mulch to biosolids is mixed with starter compost (approximately 1/4 cubic yard of

starter compost per cubic yard of compost mixture). Another windrow in the demonstration project is using a 4:1 ratio of yard clippings to biosolids for the compost. As with the chip/ mulch windrow, the compost process is inoculated with the third-stage compost amendment.

The windrows are aerated for the first three weeks of the process. Both types of composting produced PFRP (pathogen reduction processes) results below EPA 503 criteria. This means that this Class A, final product, is suitable for distribution to the public for general use. As a result of this successful demonstration, the county is looking to expand the co-composting program. The Harford County co-composting project follows a similar project that the Authority helped develop in Carroll County.


Joe also reports that the metals content for the co-composted (yard clippings and biosolids) material had better results (lower values) than just yard clippings. He sees the expansion of this program leading to the production of a 50/50 mix of composted material with the co-composted biosolids to sell to the public. "The projected volume of compost

*(continued on back page)*



Brian Bush, Chris Skaggs and Joe Rutherford examine the co-composted yard trimmings and biosolids at the Harford County Compost Facility.

# Authority Appoints New Project Analyst

The Authority recently appointed Andrew Kays as a project analyst. He joins the Authority after five years with McCormick and Company, where he worked in quality assurance. His main responsibility was monitoring food safety and environmental and sanitation compliance for one of the company's production facilities. Additionally, Mr. Kays worked on process improvement projects and helped to write a company publication titled, "Divisional Safety Standards for Safety Committees." Mr. Kays earned a bachelor of science degree in biology from Loyola College and a master's degree in environmental science and policy from The Johns Hopkins University. In his free time, Mr. Kays enjoys black and white photography, camping, cooking and reading. 



Andrew Kays, Project Analyst



Pictured left to right: John O'Hara, Howard County Chief of Environmental Services; Eric Koehler, President and CEO of Bowles Fluidics; Chi Srinath, Vice President of Bowles Fluidics, and Clif Dowling, Commercial Recycling Specialist for the Northeast Maryland Waste Disposal Authority.


## Authority Recognizes Recycling Program at Bowles Fluidics Corporation

The Authority Board of Directors awarded a Certificate of Excellence in Recycling to the Bowles Fluidics Corporation for a recycling program at their plant in Columbia, MD. John O'Hara, chief of environmental services for Howard County, Phil Bresee, recycling coordinator for the county and Clif Dowling, commercial recycling specialist for the Authority, presented the award at the Bowles Fluidics manufacturing facility on November 7.

Bowles Fluidics Corporation manufactures a variety of patented products, including spray apparatus for automobile windshield wipers and massage jets for Jacuzzi tubs. The staff at Bowles Fluidics improved their recycling program after a site visit to their facility by Clif Dowling. He

conducted an evaluation of the facility's waste disposal program and made recommendations for establishing a cost-effective recycling program. The Bowles Fluidics staff then implemented a program for recycling many varieties of scrap plastic.

Bowles Fluidics recycled 240 tons of various plastics during 2001. Their recycling program is an excellent example of a cost-effective program that benefits the environment while improving the bottom line.

Anyone interested in starting a recycling program or expanding an existing recycling program at their business or institution can learn more by visiting the Maryland Recycles website at [www.mdrecycles.org](http://www.mdrecycles.org) or by calling Clif Dowling at (410) 333-3066. 

## A New Use for 50,000 Tons of Recycled Glass

### *Glass Used to Construct Filtration Medium for Slurry Dredged From Bay*

Picture if you will, 50,000 tons of recycled glass. What would you do with it? The Maryland Port Authority has developed an exciting new application for this tremendous quantity of recycled material at the Cox Creek Dewatering Facility, located in Curtis Bay, Anne Arundel County. The recycled glass, provided by Partners Quality Recycling Services, Inc., will be used as a filtration medium for slurry dredged from the Chesapeake Bay by the Army Corps of Engineers. The Maryland Environmental Service is managing this Maryland Port Authority project.

Slurry dredged from the bay will be pumped into large bayside holding ponds, surrounded by large earthen berms. Water in the slurry will be filtered out of the dredged material as it dries

over a period of many months. On the bay side of the berms, the first two feet above sea level will be constructed of the crushed glass. The glass will serve as the filtration medium for the water to drain from the dredge material back into the bay.

The 50,000 tons of glass provided by Partners for the project was crushed to a size of less than one half inch at the company's facility in Baltimore before being hauled to the Cox Creek location.

Using recycled glass in a construction project of this size is a good alternative to using recycled glass to make new bottles and jars. For openers, the glass used in construction projects does not have to be color separated into clear, brown and

# Design for Recycling:

## Attention Commercial and Industrial Architects!

By Clifton M. Dowling


The [mdrecycles.org](http://mdrecycles.org) program provides free recycling assistance to businesses and institutions in the greater Baltimore region that want to start or expand recycling programs. A frequently encountered obstacle to establishing a business-recycling program is the lack of available space at the site, both indoors and outdoors, for staging a recycling operation.

Designing a waste management system for a new or existing property usually gets little attention compared to the amount of consideration that goes into other basic operations issues such as HVAC systems. All too often, building owners and managers say they have enough trouble finding space for conventional waste disposal, let alone establishing a separate system for recycling. Loading docks that were designed for receiving materials at a site often serve as the default location for dumpsters or other trash containers, leaving little space for recycling.

Architects should be urged to provide space for efficient and cost-effective waste management systems. This means considering the kind of waste that will be generated by the type of business that will occupy a building and providing adequate space for conventional trash collection and recycling. Designers can examine

the flow of materials through the building and provide adequate space for handling them from the time they arrive at the site until they leave as product, waste or recycled materials.

Members of the U.S. Green Building Council, representing all segments of the building industry, developed the LEED (Leadership in Energy and Environmental Design) Green Building Rating System as a voluntary, consensus-based national standard for developing high-performance, sustainable buildings. Specific standards must be met for a building to be LEED certified. Among these standards are a requirement for the storage and collection of recyclables and optional credits for building with recycled content materials. More information on this topic can be found at the U.S. Green Building Council website at [www.usgbc.org](http://www.usgbc.org) and clicking on the LEED button.


More information on the Authority's commercial recycling program can be found on our website at [www.mdrecycles.org](http://www.mdrecycles.org). You can contact the program staff at 410-333-3066 or [mdrecycles@charm.net](mailto:mdrecycles@charm.net). 

*Clifton M. Dowling is the Commercial Recycling Specialist for the Authority*




*Crushed glass is delivered to the Cox Creek Dewatering Facility.*

green lots. This eliminates the most costly aspect of processing recycled glass for conventional markets. Contamination also becomes less of a problem. While a few pieces of a porcelain cup in a load of glass may cause the entire load to be rejected by a glass company, this poses no problem for construction uses of recycled glass.

The 50,000 tons of recycled glass needed for this project used more recycled glass than was generated in the entire State of Maryland during 2001. The Maryland Department of the Environment's Maryland Recycling Act Report for calendar year 2001 listed a total of 47,764 tons of glass recycled in the entire state. 

# MABA Holds Seminar on Biosolids Industry

*Staying Two Steps Ahead* was the theme of a recent seminar sponsored by the Mid-Atlantic Biosolids Association (MABA). Authority Project Analyst Andrew Kays attended the seminar and roundtable discussion, which was held in Philadelphia, PA. The seminar included presentations on the future of regulation for the industry, new ventures in public participation, and the application of the Environmental Management System (EMS) to the biosolids industry. EMS is a systematic method of managing facilities that uses regulations as a baseline for performance, and then sets goals to exceed them. The overall tone for the seminar was encouraging. Participants were asked to take a positive approach to public interactions and improve the public's expectations for the industry.

Concurrent with the MABA seminar was the Association of Metropolitan Sewerage Agencies (AMSA)/EPA Conference Pretreatment Workshop. Participants in the AMSA session heard presentations on the future of pretreatment for wastewater treatment facilities and emerging pollutants. The session wrapped up with roundtable discussions on electronic reporting, local limits, EMS and regulatory flexibility. 

## Congratulations Chuck Weiss!

Chuck Weiss, bureau chief for Baltimore County's Bureau of Solid Waste, retired in December. Mr. Weiss served Baltimore County for 35 years and was appointed Bureau Chief in 1983. Congratulations, Chuck!

## Calendar



The Maryland Recyclers Coalition 15th Annual Conference & Training Exposition is scheduled for May 28-30, 2003. The Conference will be held at the Baltimore Community College — Catonsville Campus. For more information call (443) 640-1050.


# Covanta Appoints Delaney General Manager of Montgomery RRF

Covanta Energy, operator of the Montgomery County Resource Recovery Facility, has appointed Jim Delaney as General Manager. His responsibilities include management of operations for both the Transfer Station and Resource Recovery Facility, located in Dickerson, MD.

Mr. Delaney began his career in 1981 as a construction supervisor with the Potomac Electric Power Company (PEPCO), in Washington, D.C. From 1990 through 1992, he worked for the consulting firm of W. F. Cosulich Associates in Woodbury, NY. As resident engineer, he monitored construction of a 600 tons-per-day waste-to-energy facility built by American REF-Fuel in Preston, CT.


His employment with Covanta Energy (formerly Ogden Projects Inc.) and his association with the Montgomery County Resource Recovery Facility began in 1993, when he served as resident engineer for construction of the RRF. After construction was completed, he served as transfer station manager until his appointment as regional engineer for the Mid-Atlantic Region of Covanta Energy. In this position, he supported capital and maintenance projects at the Mont-

gomery County facility and at facilities in Fairfax and Alexandria, Virginia. In 2000, he became maintenance supervisor at the Covanta Alexandria/Arlington Inc. facility in Virginia. A year later he returned to the position of transfer station manager for the Montgomery County Project.

Mr. Delaney received a bachelor's degree in Mechanical and Industrial Engineering and a master's degree in Business Administration from Clarkson University in Potsdam, New York. 

## Rutherford *(continued from page 1)*

generated means we will use all of the biosolids produced annually at the SodRun Waste Water Treatment plant," says Joe.

The rain is falling now as we thank Joe and return to our cars. We pass a man filling up small containers in the back of his car with the yard debris compost generated at the facility. The success of the demonstration project will mean more compost available to the residents of Harford County. The program also represents an environmentally friendly method for handling biosolids. 



# WASTEWATCH

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